

CLAIMS

What is claimed is:

1. A method comprising:

receiving a request to transition control to a virtual machine (VM) from a virtual machine monitor (VMM);

determining that the request to transition control is associated with a request to be informed of an open event window of the VM;

transitioning control to the VM;

performing an event window check to determine whether the VM has an open event window; and

if the event window check indicates that the VM has an open event window, transitioning control to the VMM.

2. The method of claim 1 wherein transitioning control to the VMM comprises informing the VMM that control is transitioned to the VMM due to an open event window of the VM.

3. The method of claim 1 wherein determining that the request to transition control is associated with a request to be informed of an open event window comprises:

accessing a pending event indicator maintained by the VMM; and

determining that the pending event indicator is set to a delivery value.

4. The method of claim 1 further comprising:
determining that the VM does not have an open event window; and
repeating the event window check after each instruction executed by
the VM until determining that the VM has an open event window.
5. The method of claim 4 wherein the event window check is initially
performed before the VM executes any instructions.
6. The method of claim 4 wherein the event window check is initially
performed after the VM executes a first instruction.
7. The method of claim 1 further comprising:
prior to determining that the VM has an open event window,
detecting a higher priority event associated with a transition of
control to the VMM,
transitioning control to the VMM; and
informing the VMM that control is transitioned due to the higher
priority event.
8. A method comprising:

setting a pending event indicator to a delivery value to indicate an intent to receive a notification of an opening of an event window of a virtual machine (VM); and

requesting a transition of control to the VM.

9. The method of claim 8 further comprising:

prior to setting the pending event indicator to a delivery value,

determining whether the VM has an open event window, and

if the VM has an open event window and there is a pending event to be delivered to the VM, resetting the pending event indicator to a non-delivery value, and requesting the delivery of the pending event to the VM.

10. The method of claim 8 further comprising:

receiving control transitioned from the VM;

determining whether a transition of control was due to the VM having an open event window; and

if the transition of control was due to the VM having an open event window and there is a pending event to be delivered to the VM, requesting the delivery of the pending event to the VM.

11. The method of claim 10 further comprising:

determining that the transition of control was not due to the VM
having an open event window; and
performing one or more operations associated with the transition of
control

12. The method of claim 10 further comprising:

determining that the transition of control was not due to the VM
having an open event window;
performing one or more operations associated with the transition of
control; and
if a pending event is to be delivered to the VM, determining whether
the VM is ready to receive the pending event.

13. The method of claim 12 further comprising:

determining that the VM is ready to receive the pending event;
resetting the pending event indicator to a non-delivery value ; and
requesting the delivery of the pending event to the VM.

14. The method of claim 12 further comprising:

determining that the VM is not ready to receive the pending event; and
requesting a transition of control to the VM.

15. An apparatus comprising:

a virtual machine monitor (VMM);

a data structure controlled by the VMM, the data structure storing a pending event indicator associated with a pending event; and

open window monitoring logic to transition control to a virtual machine (VM) upon receiving a request to transition control to the VM from the VMM, to determine that the pending event indicator is set to a delivery value, to determine whether an event window of the VM is open, and to transition control to the VMM if the event window of the VM is open.

16. The apparatus of claim 15 wherein the open window monitoring logic is further to inform the VMM that control is transitioned to the VMM due to an open event window of the VM.

17. The apparatus of claim 15 wherein the open window monitoring logic is further to determine that the event window of the VM is closed, and perform the determining whether the event window of the VM is open after each instruction executed by the VM until determining that the event window of the VM is open.

18. The apparatus of claim 15 wherein the determining whether the event window of the VM is open is initially performed before the VM executes any instructions.

19. A system comprising:
- a memory to store one or more indicators; and
 - a processor, coupled to the memory, to use the one or more indicators to determine that transition of control to a virtual machine (VM) is associated with a request to be informed of an opening of an event window of the VM, to perform an event window check to determine whether the event window of the VM is open, and to transition control to a virtual machine monitor (VMM) if the event window check indicates that the event window of the VM is open.
20. The system of claim 19 wherein the processor is further to inform the VMM that control is transitioned to the VMM due to an open event window of the VM.
21. The system of claim 19 wherein the processor is to determine that the request to transition control is associated with an open event window of the VM by accessing a pending event indicator maintained by the VMM, and determining that the pending event indicator is set to a delivery value.
22. A system comprising:
- a memory to store one or more indicators; and
 - a processor, coupled to the memory, to set the one or more indicators to a delivery value to indicate an intent to receive a notification of an opening of

an event window of a virtual machine (VM), to receive a request to transition control to the VM, and to transition control to the VM..

23. The system of claim 22 wherein the processor is to determine, prior to setting the pending event indicator to a delivery value, whether the VM has an open event window, and, if the VM has an open event window and there is a pending event to be delivered to the VM, to reset the pending event indicator to a non-delivery value, and to receive a request to deliver the pending event to the VM.

24. The system of claim 22 wherein the processor is further to transition control the VM, to determine whether a transition of control was due to the VM having an open event window, and, if the transition of control was due to the VM having an open event window and there is a pending event to be delivered to the VM, to receive a request to deliver the pending event to the VM.

25. A machine-readable medium containing instructions which, when executed by a processing system, cause the processing system to perform a method, the method comprising:

transitioning control to a virtual machine (VM) upon receiving a request to transition control to the VM from a virtual machine monitor (VMM);

determining that the request to transition control is associated with a request to be informed of an open event window of the VM;

performing an event window check to determine whether the event window of the VM is open; and

if the event window check indicates that the event window of the VM is open, transitioning control to the VMM.

26. The machine-readable medium of claim 25 wherein transitioning control to the VMM comprises informing the VMM that control is transitioned to the VMM due to an open event window of the VM.

27. The machine-readable medium of claim 25 wherein determining that the request to transition control is associated with a request to be informed of an open event window of the VM comprises:

accessing a pending event indicator maintained by the VMM; and

determining that the pending event indicator is set to a delivery value.

28. A machine-readable medium containing instructions which, when executed by a processing system, cause the processing system to perform a method, the method comprising:

setting a pending event indicator to a delivery value to indicate an intent to receive a notification of an opening of an event window of a virtual machine (VM); and

requesting a transition of control to the VM.

29. The machine-readable medium of claim 28 wherein the method further comprises:

prior to setting the pending event indicator to a delivery value,

determining whether the VM has an open event window, and

if the VM has an open event window and there is a pending event to be delivered to the VM, resetting the pending event indicator to a non-delivery value, and requesting the delivery of the pending event to the VM.

30. The machine-readable medium of claim 28 wherein the method further comprises:

receiving control transitioned from the VM;

determining whether a transition of control was due to the VM having an open event window; and

if the transition of control was due to the VM having an open event window and there is a pending event to be delivered to the VM, requesting the delivery of the pending event to the VM.